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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
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EXAMINER

MCCARTHY, CHRISTOPHER S

ART UNIT	PAPER NUMBER
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2113

DATE MAILED: 07/06/2005

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

09/928,176

Applicant(s)

CHIGURUPATI, CHAKRAVARTHI

Examiner

Christopher S. McCarthy

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
 - If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
 - If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
 - Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 11 April 2005.
- 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-25 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-25 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 09 August 2001 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.
- Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
- Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. _____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- * See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- 1) ☐ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☐ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date _____
- 4) ☐ Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other: _____

DETAILED ACTION

1. Claims 1-9, 19-25 are rejected under 35 U.S.C. 102(e) as being anticipated by Simone U.S. Patent 6,202,090, as cited in prior office action, which was mailed on 12/6/04.
2. Claims 10-18 are rejected under 35 U.S.C. 103(a) as being obvious over Simone.

Claim Rejections - 35 USC § 102

3. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(e) the invention was described in (1) an application for patent, published under section 122(b), by another filed in the United States before the invention by the applicant for patent or (2) a patent granted on an application for patent by another filed in the United States before the invention by the applicant for patent, except that an international application filed under the treaty defined in section 351(a) shall have the effects for purposes of this subsection of an application filed in the United States only if the international application designated the United States and was published under Article 21(2) of such treaty in the English language.

4. Claims 1-9, 19-25 are rejected under 35 U.S.C. 102(e) as being anticipated by Simone U.S. Patent 6,202,090.

As per claim 1, Simone teaches a method, comprising of loading a bootstrap program into an area of a memory of a service module that was occupied by a run time program (column 2, line 67 – column 3, line 3; column 3, lines 46-62), the bootstrap program loaded after the service module is reset due to an error while executing the run time program (column 4, lines 7-8), capturing a memory image of the memory using the bootstrap program (column 3, lines 46-62);

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and sending the captured memory image to a control module using a bus shared by the control module and the service module, wherein the control module is configured to receive captured memory images from one or more service modules (column 2, lines 33-38; column 5, lines 29-37).

As per claim 2, Simone teaches the method of claim 1, further comprising of allocating communication buffers used by bootstrap program in the area of memory that was occupied by the run time program (column 3, lines 40-41; column 2, line 63 – column 3, line 5).

As per claim 3, Simone teaches the method of claim 1, wherein the captured memory image of the memory is compressed before being sent to the control module (column 3, lines 45-62).

As per claim 4, Simone teaches the method of claim 1, wherein capturing the memory image comprises: reading a first block of memory; and compressing the first block of memory into a compressed unit before reading a second block of memory using a compression algorithm (column 4, line 64 – column 5, line 7).

As per claim 5, Simone teaches the method of claim 4, wherein one or more blocks of memory is compressed into the compressed unit until the compressed unit reaches a predetermined size (column 4, line 64 – column 5, line 5).

As per claim 6, Simone teaches the method of claim 5, wherein sending the captured memory image to the control module comprises sending one or more compressed units to the control module (column 5, lines 17-37).

As per claim 7, Simone teaches the method of claim 6, wherein the one or more compressed units is stored as a file in a persistent storage of the control unit (column 2, lines 33-36).

As per claim 8, Simone teaches the method of claim 4, wherein the compression algorithm is a zip algorithm (column 5, lines 3-5).

As per claim 9, Simone teaches the method of claim 1, further comprising loading the run time program into the memory of the service module after sending the captured memory image to the control module (column 3, lines 48-51; figure 3 – “return” step).

As per claim 19, Simone teaches a system, comprising a memory; and a processor coupled with the memory (column 1, line 66 – column 2, line 8), the processor configured by a bootstrap program to capture a memory image of the memory after the processor is reset when an error occurs while executing a run time program, wherein the bootstrap program is loaded into an area of the memory occupied by the run time program when the error occurs (column 2, line 67 – column 3, line 3; column 3, lines 46-62).

As per claim 20, Simone teaches the system of claim 19, wherein the captured memory image is sent out to a bus using communication buffers allocated in the area of the memory occupied by the run time program, the memory areas occupied by the bootstrap program and allocated to the communication buffers do not overlap (figure 2).

As per claim 21, Simone teaches the system of claim 20, wherein the captured memory image is sent out to the bus in compressed form (column 3, lines 45-62).

As per claim 22, Simone teaches a system comprising a memory means; means for loading a bootstrap program into a first memory area of the memory means, the memory area

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previously occupied by a run time program, the bootstrap program loaded after a reset due to an error while executing the run time program (column 2, line 67 – column 3, line 3; column 3, lines 46-62), means for capturing a memory image of the memory means (column 4, lines 7-8); and means for transferring the captured memory image to a control module (column 2, lines 33-38; column 2, line 63 – column 3, line 5).

As per claim 23, Simone teaches the system of claim 22, wherein the means for capturing the memory image comprises means for capturing an image of a second memory area used by the run time program as a data area when the error occurs (column 4, line 64 – column 5, line 5).

As per claim 24, Simone teaches the system of claim 22, wherein the means for transferring the captured memory image comprises means for compressing the captured memory image (column 3, lines 45-62).

As per claim 25, Simone teaches the system of claim 24, wherein the captured memory image is transferred using communication buffers allocated in the first memory area (column 3, lines 40-41; column 2, line 63 – column 3, line 5).

The applied reference has a common assignee with the instant application. Based upon the earlier effective U.S. filing date of the reference, it constitutes prior art under 35 U.S.C. 102(e). This rejection under 35 U.S.C. 102(e) might be overcome either by a showing under 37 CFR 1.132 that any invention disclosed but not claimed in the reference was derived from the inventor of this application and is thus not the invention “by another,” or by an appropriate showing under 37 CFR 1.131.

Claim Rejections - 35 USC § 103

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5. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

6. Claims 10-18 are rejected under 35 U.S.C. 103(a) as being obvious over Simone.

As per claim 10, Simone teaches a computer readable medium having stored thereon sequences of instructions which are executable by a system, and which, when executed by the system, cause the system to: load a bootstrap program into an area of a memory of a service module that was occupied by a run time program (column 2, line 67 – column 3, line 3; column 3, lines 46-62), the bootstrap program loaded after the service module is reset due to an error while executing the run time program (column 4, lines 7-8); capture a memory image of the memory using the bootstrap program (column 3, lines 46-62), and send the captured memory image to a control module using a bus shared by the control module and the service module, wherein the control module is configured to receive captured memory images from one or more service modules (column 2, lines 33-38; column 2, line 63 – column 3, line 5). However, the invention does not explicitly teach wherein the service module does not have persistent storage capability for a core dump. However, Simone does teach in the “Background of the Invention” the utilization of a service module not having a persistent storage capability for a core dump. It would have been obvious to one of ordinary skill in the art at the time the invention was made to exclude a persistent storage capability for a core dump in the invention of Simone. One of ordinary skill in the art would have been motivated to exclude a persistent storage capability for a core dump in the invention of Simone because Simone teaches that compressing a core dump

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into a flash memory is a cost-effective method to save space on the service module since flash memories can be expensive (column 1, lines 58-62). Simone also teaches, in the background (column 1, lines 22-35), that an existing typical method is to transfer the core dump externally as to save money on not using a flash memory in the service module. Since the cost-effectiveness of the invention of Simone is a motivation for the compression of the core dump on the service module, then a further desire would also be to achieve an even more cost-effective method and not have a persistent memory at all and transfer the data elsewhere, as taught in the background.

As per claim 11, Simone teaches the computer readable medium of claim 10, further comprising instructions to allocate communication buffers used by bootstrap program in the area of memory that was occupied by the run time program (column 3, lines 40-41; column 2, line 63 – column 3, line 5).

As per claim 12, Simone teaches the computer readable medium of claim 10, wherein the captured memory image of the memory is compressed before being sent to the control module (column 3, lines 45-62).

As per claim 13, Simone teaches the computer readable medium of claim 10, wherein the instructions to capture the memory image comprises instructions to: read a first block of memory; and compress the first block of memory into a compressed unit before reading a second block of memory using a compression algorithm (column 4, line 64 – column 5, line 7).

As per claim 14, Simone teaches the computer readable medium of claim 13, wherein one or more blocks of memory is compressed into the compressed unit until the compressed unit reaches a predetermined size (column 4, line 64 – column 5, line 5).

As per claim 15, Simone teaches the computer readable medium of claim 14, wherein the instructions to send the captured memory image to the control module comprises instructions to send one or more compressed units to the control module (column 5, lines 17-37).

As per claim 16, Simone teaches the computer readable medium of claim 15, wherein the one or more compressed units is stored as a file in a persistent storage of the control unit (column 2, lines 33-36).

As per claim 17, Simone teaches the computer readable medium of claim 13, wherein the compression algorithm is a zip algorithm (column 5, lines 3-5).

As per claim 18, Simone teaches the computer readable medium of claim 10, further comprising instructions to load the run time program into the memory of the service module after sending the captured memory image to the control module (column 3, lines 48-51; figure 3).

The applied reference has a common assignee with the instant application. Based upon the earlier effective U.S. filing date of the reference, it constitutes prior art only under 35 U.S.C. 102(e). This rejection under 35 U.S.C. 103(a) might be overcome by: (1) a showing under 37 CFR 1.132 that any invention disclosed but not claimed in the reference was derived from the inventor of this application and is thus not an invention "by another"; (2) a showing of a date of invention for the claimed subject matter of the application which corresponds to subject matter disclosed but not claimed in the reference, prior to the effective U.S. filing date of the reference under 37 CFR 1.131; or (3) an oath or declaration under 37 CFR 1.130 stating that the application and reference are currently owned by the same party and that the inventor named in the application is the prior inventor under 35 U.S.C. 104, together with a terminal disclaimer in accordance with 37 CFR 1.321(c). This rejection might also be overcome by showing that the

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reference is disqualified under 35 U.S.C. 103(c) as prior art in a rejection under 35 U.S.C.

103(a). See MPEP § 706.02(l)(1) and § 706.02(l)(2).

Response to Arguments

7. Applicant's arguments filed 4/11/05 have been fully considered but they are not persuasive.

With respect to claim 1, the applicant has argued that Simone does not disclose loading a bootstrap program into an area of a memory of a service module that was occupied by a run time program, where the bootstrap program is loaded after the service module is reset due to an error while executing the run time program. The examiner respectfully disagrees. In column 3, lines 48-60, Simone teaches wherein a bootstrap program is inclusive in an operating routine (line 49) wherein, upon reset, the bootstrap program and the operating routine are loaded in the same area of memory. Since these routines are inclusive of each other, when the system is reset, the boot-up routine is reset and loaded into the same area of the operating routine.

With respect to claim 19, the applicant has argued that Simone does not teach or suggest a processor configured by a bootstrap program to capture a memory image of the memory after the processor is reset when an error occurs while executing a run time program. The examiner respectfully disagrees. Simone shows in figure 3, and teaches in column 4, line 45 to column 5, line 28, that the process Simone is repetitive, as shown by the "return" step in figure 3. The processor (system) is then reset at step 90, and then the process starts over at step 70 and if an

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error occurs again, a memory image is then recorded. Broadly interpreted, an image is taken both before and after an error according to the continuous loop.

Applicant's arguments with respect to claim 10 have been considered but are moot in view of the new ground(s) of rejection.

In light of the above arguments, all rejected claims stand.

Conclusion

8. THIS ACTION IS MADE FINAL. Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the mailing date of this final action.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Christopher S. McCarthy whose telephone number is (571)272-3651. The examiner can normally be reached on M-F, 9 - 5:30.

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If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Robert Beausoliel can be reached on (571)272-3645. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

csm
June 29, 2005



SCOTT BADERMAN
PRIMARY EXAMINER